

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1217428

Luminaire Tested: S124DRP-S865D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217428
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S865D835-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

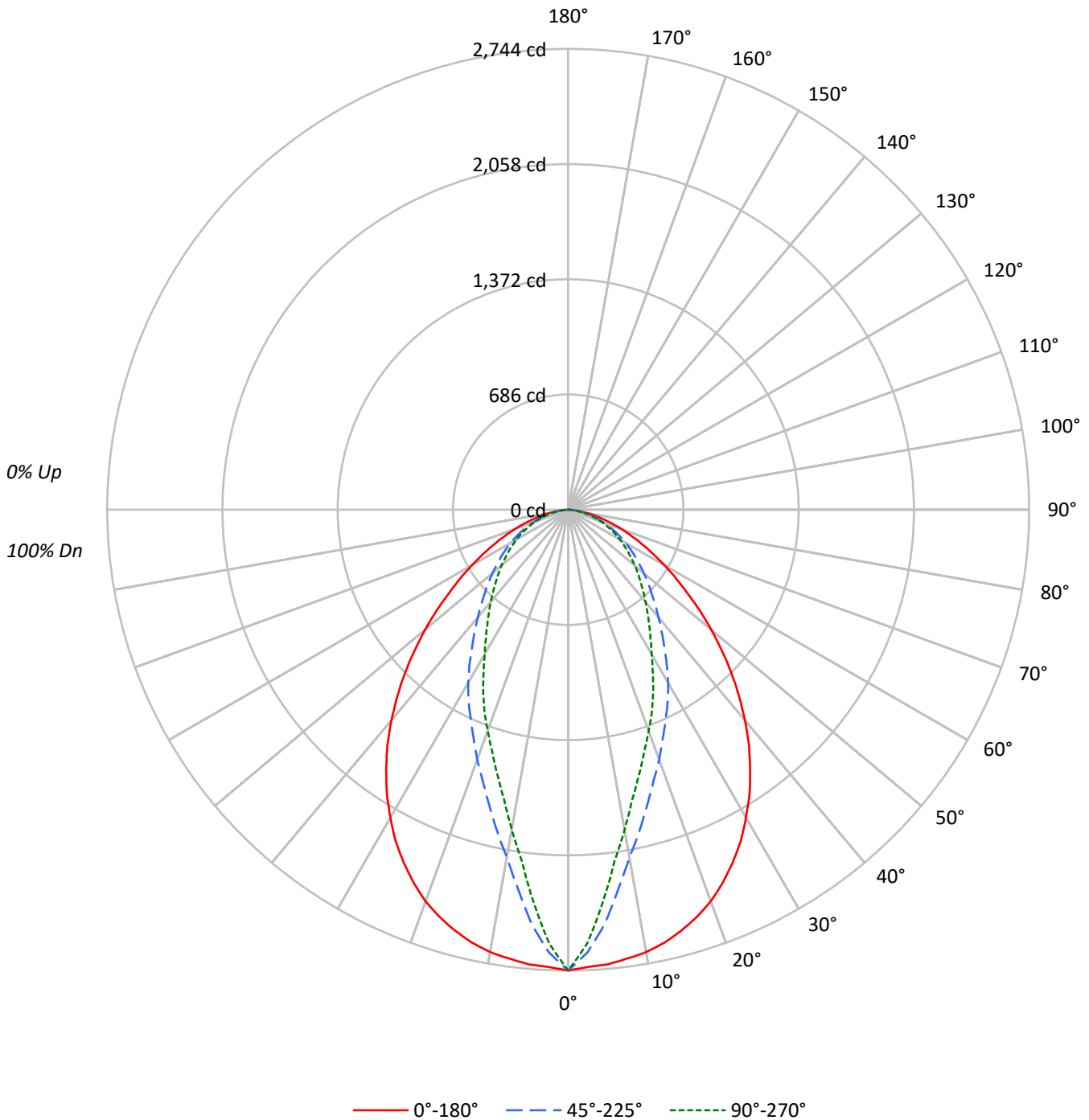
Lumens per Lamp: N/A
Luminaire Lumens: 3848.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59					57				
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53					51				
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47					45				
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43					41				
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39					37				
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36					34				
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24258	24258	24258
5°	24115	22002	20856
10°	24015	18862	17355
15°	23765	16643	14929
20°	23349	14891	13186
25°	22605	13401	11680
30°	21610	12149	10139
35°	20382	10771	9076
40°	18880	9649	8268
45°	17161	8776	7628
50°	15288	8077	7129
55°	13334	7505	6667
60°	11708	6986	6281
65°	10136	6446	5864
70°	8776	5840	5403
75°	7304	5158	4745
80°	5662	4185	3875
85°	3551	2820	2577

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17161 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.7	6.0
10°-20°	545.6	14.2
20°-30°	697.2	18.1
30°-40°	708.1	18.4
40°-50°	627.7	16.3
50°-60°	493.3	12.8
60°-70°	335.9	8.7
70°-80°	172.4	4.5
80°-90°	38.2	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1472.4	38.3
0°-40°	2180.5	56.7
0°-60°	3301.5	85.8
0°-90°	3848.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3848.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2744	2744	2744	2744	2744	
5°	2717	2648	2479	2384	2350	258
15°	2596	2167	1818	1668	1631	731
25°	2317	1699	1374	1242	1197	1065
35°	1888	1287	998	871	841	1178
45°	1372	927	702	630	610	1057
55°	865	617	487	443	432	781
65°	484	374	308	286	280	485
75°	214	176	151	144	139	230
85°	35	33	28	28	25	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2743.7	2743.7	2743.7	2743.7	2743.7
2.5°	2724.4	2728.0	2637.4	2604.8	2585.5
5°	2717.1	2648.3	2479.1	2383.7	2349.9
7.5°	2695.4	2545.6	2278.6	2146.9	2111.9
10°	2674.9	2428.4	2101.0	1970.5	1933.1
12.5°	2641.0	2299.1	1958.4	1808.6	1763.9
15°	2596.3	2167.4	1818.3	1668.5	1631.0
17.5°	2543.2	2041.8	1691.4	1547.7	1506.6
20°	2481.6	1925.8	1582.7	1435.3	1401.5
22.5°	2404.2	1811.0	1471.5	1338.6	1301.2
25°	2317.2	1698.7	1373.7	1242.0	1197.3
27.5°	2224.2	1589.9	1283.1	1136.9	1089.8
30°	2116.7	1486.0	1190.0	1036.6	993.1
32.5°	2008.0	1383.3	1092.2	947.2	912.2
35°	1888.4	1286.7	997.9	871.1	840.9
37.5°	1767.5	1193.7	913.4	802.2	775.6
40°	1635.8	1103.0	836.0	738.2	716.4
42.5°	1504.2	1012.4	766.0	681.4	660.9
45°	1372.5	926.7	701.9	629.5	610.1
47.5°	1239.6	842.1	642.7	578.7	563.0
50°	1111.5	762.3	587.2	531.6	518.3
52.5°	987.1	687.4	534.0	486.9	472.4
55°	865.0	617.4	486.9	443.4	432.5
57.5°	761.1	552.1	439.8	402.3	393.9
60°	662.1	489.3	395.1	363.7	355.2
62.5°	569.0	431.3	350.4	325.0	319.0
65°	484.5	374.5	308.1	286.3	280.3
67.5°	407.1	322.6	264.6	248.9	244.0
70°	339.5	270.6	225.9	212.6	209.0
72.5°	271.8	221.1	187.3	177.6	174.0
75°	213.8	176.4	151.0	143.8	138.9
77.5°	160.7	134.1	116.0	109.9	106.3
80°	111.2	95.4	82.2	79.7	76.1
82.5°	70.1	60.4	53.2	52.0	48.3
85°	35.0	32.6	27.8	27.8	25.4
87.5°	12.1	10.9	10.9	10.9	9.7
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.98	21.47	20.35	21.78	22.10	17.31	18.80	17.67	19.11	19.42
	3H	21.58	22.91	21.95	23.24	23.60	18.91	20.24	19.28	20.57	20.93
	4H	22.11	23.36	22.51	23.70	24.08	19.46	20.71	19.86	21.06	21.44
	6H	22.44	23.59	22.85	23.96	24.35	19.82	20.97	20.23	21.34	21.73
	8H	22.51	23.61	22.94	24.00	24.40	19.91	21.00	20.33	21.39	21.80
	12H	22.54	23.59	22.97	23.98	24.41	19.94	20.99	20.37	21.38	21.81
4H	2H	20.21	21.46	20.61	21.81	22.19	17.98	19.23	18.38	19.58	19.96
	3H	22.00	23.03	22.41	23.43	23.83	19.77	20.81	20.18	21.21	21.61
	4H	22.64	23.57	23.07	23.98	24.42	20.44	21.37	20.87	21.78	22.22
	6H	23.08	23.89	23.54	24.33	24.80	20.89	21.70	21.35	22.14	22.61
	8H	23.19	23.95	23.66	24.39	24.86	21.01	21.76	21.47	22.21	22.68
	12H	23.25	23.93	23.73	24.40	24.88	21.07	21.74	21.55	22.22	22.69
8H	4H	22.74	23.50	23.20	23.94	24.41	20.73	21.49	21.20	21.94	22.40
	6H	23.26	23.88	23.76	24.37	24.85	21.28	21.91	21.78	22.40	22.88
	8H	23.41	23.97	23.93	24.48	24.97	21.45	22.01	21.97	22.52	23.01
	12H	23.51	24.01	24.02	24.50	25.06	21.56	22.05	22.07	22.54	23.11
12H	4H	22.73	23.40	23.21	23.88	24.36	20.76	21.43	21.24	21.91	22.38
	6H	23.25	23.81	23.77	24.32	24.81	21.32	21.88	21.84	22.39	22.88
	8H	23.44	23.94	23.95	24.43	24.99	21.53	22.03	22.05	22.52	23.09